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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
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| 09/528,780 | 03/17/2000 | Joerg Plamper | HBC-221-KFM | 5327 |

7590 07/31/2002

Karl F Milde Jr.
Milde Hoffberg & Macklin LLP
Suite 460
10 Bank Street
White Plains, NY 10606

EXAMINER

RODRIGUEZ, ARMANDO

| | |
|----------|--------------|
| ART UNIT | PAPER NUMBER |
|----------|--------------|

2828

DATE MAILED: 07/31/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/528,780

Applicant(s)

PLAMPER ET AL.

Examiner

Armando Rodriguez

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 06 May 2002.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-12 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-12 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.


PAUL JP
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2800

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 13 March 2000 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Drawings

The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the start-up procedure must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 7 and 10 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Regarding claim 7.

A suitable circuit and a constant voltage source are insufficient method steps to establish a negative resistance.

Regarding claim 10.

It is not clear what is meant by a portion of the of the laser diodes.

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Claim 10 recites the limitation "the additional portions" in 18. There is insufficient antecedent basis for this limitation in the claim.

Allowable Subject Matter

The indicated allowability of claim 11 is withdrawn in view of the newly discovered reference(s) to Sawai (PN 4,604,753). Rejections based on the newly cited reference(s) follow.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

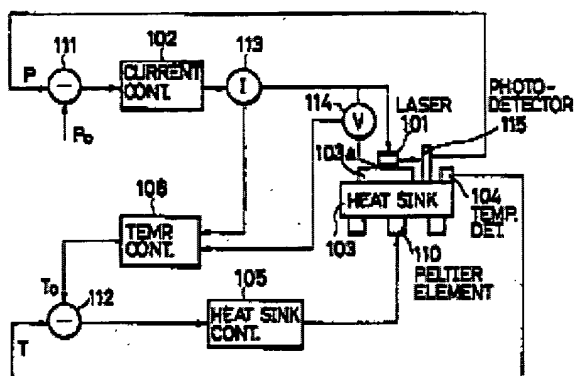
A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1,2,4-7 and 12 are rejected under 35 U.S.C. 102(b) as being anticipated by Shiozawa et al (PN 5,392,303).

In figure 3 Shiozawa et al illustrates a stabilization circuit for a laser, where the current and voltage are detected (113,114) and their signals are inputs to temperature controller, which will perform a mathematical operation to provide an adjustment for the temperature. As illustrated the current influencing the temperature of the laser will in turn influence the forward of the laser establishing a relationship between the forward voltage and the current, where the forward voltage is a function of the current and the temperature.

FIG. 3



Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claim 3 is rejected under 35 U.S.C. 103(a) as being unpatentable over Shiozawa et al (PN 5,392,303) in view of Aotsuka et al (PN 4,710,631).

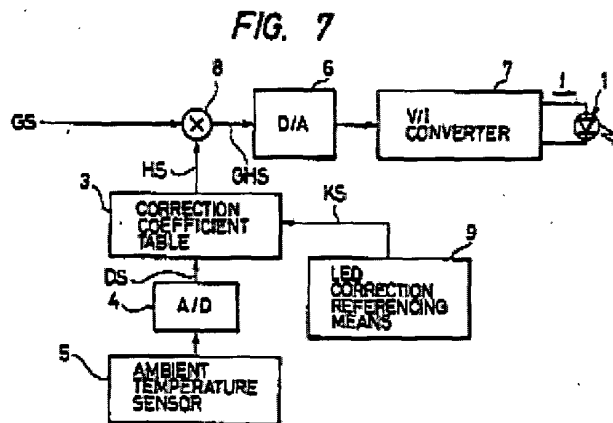
In figure 3 Shiozawa et al illustrates a stabilization circuit for a laser, where the current and voltage are detected (113,114) and their signals are inputs to temperature controller, which will perform a mathematical operation to provide an adjustment for the temperature. As illustrated the current influencing the temperature of the laser will in turn influence the forward of the laser establishing a relationship between the forward

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voltage and the current, where the forward voltage is a function of the current and the temperature.

Shiozawa et al is silent of using a A/D converter in the temperature controller (106) and a D/A converter in the current controller.

The use of A/D converters and D/A converters are well known in the laser art as shown in figure 7 of Aotsuka et al and would involve only routine skill in the art to provide the circuits of the temperature controller and the current controller with these converters.



Claims 8-10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Shiozawa et al (PN 5,392,303).

In figure 3 Shiozawa et al illustrates a stabilization circuit for a laser, where the current and voltage are detected (113,114) and their signals are inputs to temperature controller, which will perform a mathematical operation to provide an adjustment for the temperature. As illustrated the current influencing the temperature of the laser will in

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turn influence the forward of the laser establishing a relationship between the forward voltage and the current, where the forward voltage is a function of the current and the temperature.

Shiozawa et al does not disclose the use of several lasers.

Since it has been held that mere duplication of the essential working parts of a device involves only routine skill in the art, it would have been obvious to a person having routine skill in the art to use more than one laser.

St. Regis Paper Co. v. Bemis Co., 193 USPQ 8.

Claim 11 is rejected under 35 U.S.C. 103(a) as being unpatentable over Sawai (PN 4,604,753).

In column 2 lines 59-66 discloses that it is a well known phenomenon of the forward voltage changes with changes of the temperature.

Therefore, it would have been obvious to a person having ordinary skill in the art at the time the invention was made to determine the forward voltage of the laser at different temperatures by varying the temperature.

Conclusion


Any inquiry concerning this communication or earlier communications from the examiner should be directed to Armando Rodriguez whose telephone number is (703) 308-6218. The examiner can normally be reached on 10-hour day / M-F.


If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Paul Ip can be reached on (703) 308-3098. The fax phone numbers for the

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organization where this application or proceeding is assigned are (703) 308-7722 for regular communications and (703) 308-7721 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-4881.


Armando Rodriguez
Examiner
Art Unit 2828


Paul Ip
Supervisor
Art Unit 2828

AR/PI
July 18, 2002